Reply to Office Action dated July 18, 2006

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A washing machine having a sensor unit installed with respect to an outer tub for holding water, the washing machine comprising:

a microcomputer having an input port receiving an applied voltage, the input port electrically connected to a supply voltage;

first and second electrodes, installed so as to be submerged in the water of the outer tub, wherein said first electrode is electrically connected to the supply voltage and said second electrode is electrically connected to ground, to thereby generate the applied voltage for input to the input port of said microcomputer;

a spherical conductor disposed adjacent to said electrodes; [and] support means for supporting said spherical conductor[.];

wherein an electrical short is created between said electrodes by said spherical conductor displaced when a state of imbalance exists in the washing machine.

- 2. (Original) The washing machine as claimed in claim 1, wherein said first and second electrodes are installed such that a predetermined gap is maintained between said electrodes, to measure a contaminant in the water of the outer tub.
 - 3. Cancelled.
- 4. (Original) The washing machine as claimed in claim 1, wherein said support means has opposing sides for supporting said spherical conductor, the opposing sides being inclined at a predetermined angle, and wherein said spherical conductor rests within said support means while the washing machine is in a balanced state and is displaced by a state of imbalance.